



# The Clinical and Epidemiological Characteristics of HBV Infection in Armenia For 2016 -2017

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## Background:

Hepatitis B virus (HBV) infection is a global issue including Republic of Armenia.

According to preliminary data 2% of Armenian population is considered to be infected with Hepatitis B virus. Since 1999 Hepatitis B virus vaccination is a national program among newborn children. Genotype D of HBV is predominant (96%) in both acute and chronic hepatitis B (CHB) infected patients in Armenia. Among data concerning 10 Armenian patients there are 9 patients with mutation G1764T, and in all of them it is associated with mutation in C1766G position. In addition to general prevalence there are high risk groups i.e. PWID, HIV patients, the prisoners and hemodialysis patients.

## Aim of this study is:

To evaluate clinical and epidemiological characteristics of HBV infection in Armenia according to Nork Infection Hospital data for 2016-2017.

## Materials and Methods

The study includes 402 patients with acute and chronic HBV infection admitted in our clinic. In order to diagnose clinical manifestations, patients have been subjected to clinical, biochemical, serological (HBsAg, Anti-HBcAg, Anti-Delta, Anti HCV, Anti-HAV, Anti-HEV,) virological HBV quantitative and qualitative parameters as well as instrumental investigations. From 402 patients 354 (88%) were men. Mean age was  $39.8 \pm 13.9$  (2-71).

## Results

Out of 402 in 48 (12%) patients with acute viral hepatitis B (AHB) was diagnosed, mean age was  $34.45 \pm 9.76$  years old (20-48) with male sex predominancy (90%). As a result of epidemiological studies, potential risk factor in AHB patients was horizontal, particularly sexual route. Out of 48 patients in 2 (4%) the infection has reached the chronic phase.

In 354 patients chronic HBV infection was diagnosed, including 7 (2%) patients of child age (2-15). All of 7 children were unvaccinated against HBV.

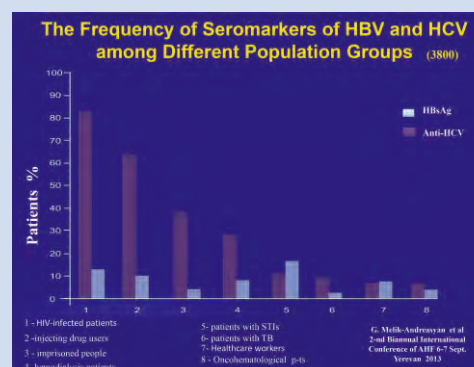
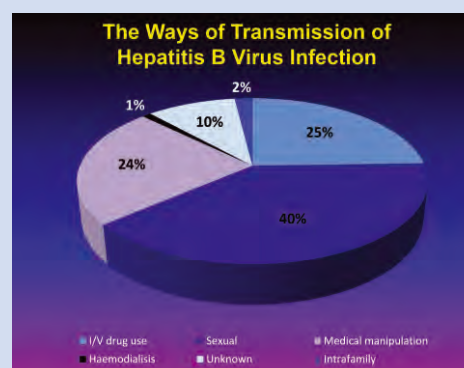
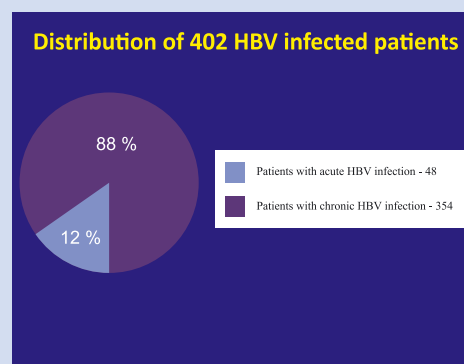
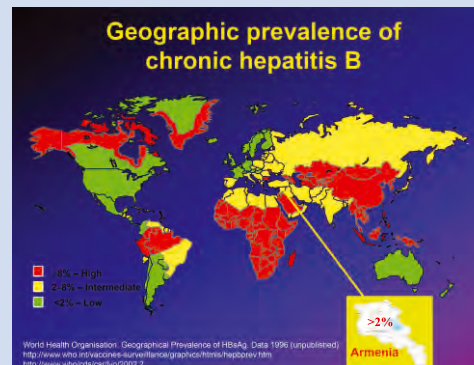
The mean age for the chronic HBV infection in 347 adults was  $46.6 \pm 13.76$ . Clinical manifestations of CHB are the following:

1. Chronic HBV infection with low replication of the virus 318 (89,4%), who were followed up for 2 times a year,  
Chronic viral hepatitis B-20 (6%)

HBV-cirrhosis - 14 (4%)

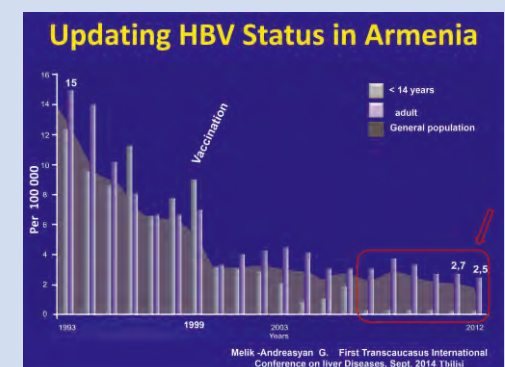
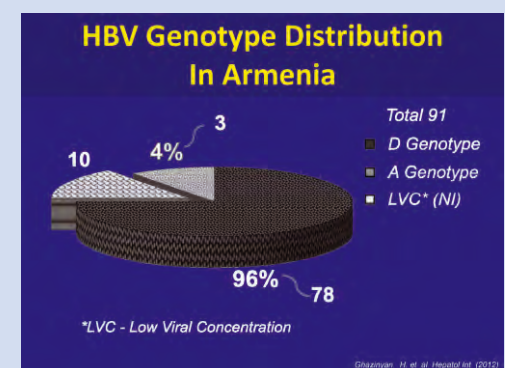
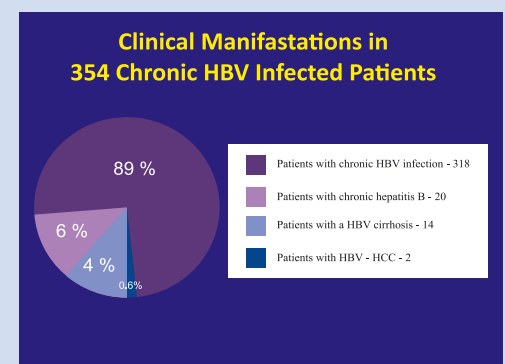
HBV - HCC - 2 (0.6%)

Antiviral Treatment indication is based on the APASL guideline on Management of HBV infection and the main antiviral agent is chosen tenofovir and not a single resistance case was registered. According to epidemiological data, in case of chronic HBV infections the main transmission routes were the use of intravenous drugs and surgical interferences. The prevalence of HBV in the main confirmed risk groups is: Patients with HIV infection 12%, PWID 8%, Patients with sexual infection 7% and prisoners 5%.



## HBV Infection Baseline Demographics and Laboratory Results

Number	402
Gender (male)	354 (88%)
Patients with acute HBV	48 (12%)
Mean age in acute HBV	$34.45 \pm 9.76$ (20-48)
Patients with chronic HBV	354 (88%)
Mean age in chronic HBV	$46.6 \pm 13.76$
Predominant Genotype of HBV	96%
Patients with mutation G1764T	9%



## Conclusions:

- Armenia was and remains as a country with intermediate prevalence of HBV
- Vaccination against HBV effectively prevents transmission of HBV
- The age of patients with acute HBV shifted to older age group
- Certain risk groups have main role in maintaining intensity of HBV epidemic process in country